



Chapter 15

Glossary

MISSOURI TECHNOLOGY EDUCATION GUIDE
2002 v. 2.1



Glossary

Accountability – Being held answerable or responsible for. In education, it is being held responsible for what is taught and what is learned.

Affective Domain – that area of learning which emphasizes a feeling tone, an emotion or a degree of acceptance or rejection.

Americans with Disabilities (ADA) - Prohibits discrimination in employment and other situations against persons with disabilities.

Area Vocational Technical School (AVTS) - A public educational institution that has been designated by the State Board of Education. An area vocational technical school may be: 1) a specialized high school; 2) a department of a high school; 3) a department or division of a junior/community college, used exclusively for vocational education. Area schools provide career and technical education on a regional basis for high school students and adults.

Articulation –Planned sequence of curriculum and/or course offerings from kindergarten to twelfth grades.

Assessment – The systematic process of collecting information on students' learning, understanding, and capability then using that information to reform instruction and enhance learning.

Alternative Assessments – This type of assessment, synonymous with authentic- and performance-based assessment, requires students to actively accomplish significant tasks using the knowledge and skills learned. Examples of types of assessment are demonstrations, projects, written or oral reports, student interviews, portfolios, and self-assessments that are graded or evaluated.

Association for Career and Technical Education – The largest national education associated dedicated to the advancement of education that prepares youth and adults for careers (formerly the American Vocational Association (AVA).

Authentic Assessment – A method that directly examines student performance on tasks which are directly related “real” life experiences and applications.

Basic Skills – A teaching position that provides individual or small group instruction in mathematics, reading and writing skills essential for successful completion of a vocational training program. The instruction is provided in cooperation with the vocational teacher and concurrently with enrollment in a vocational program.

Benchmarks – Objectives that articulate the knowledge and abilities that will enable the student to meet the respective standard.

Brainstorming – A group problem-solving technique that involves the spontaneous contribution of ideas from all members of the group.

Career and Technical Education – formal and informal education that deals with preparing students for specific careers in vocational and/or technical occupations

Career and Technical Education Resources (CATER) – This is a library exclusively for Missouri educators designed to supplement and enhance career and technical education curriculum (formerly MRCCTE). Books, guides, games, directories, games, kits and videos related to health, business, agriculture, technology, family and consumer sciences and marketing education are available free-for-loan.

Career and Technical Student Organization – Organizations (such as FFA, FBLA, etc.) for students and educators involved in specific areas of career and technical education (formerly known as vocational student organizations [VSO]).

Carl D. Perkins Vocational and Applied Technology Education Act – federal law providing federal support for career and technical education primarily targeting programs for high school students and post-secondary students attending community and technical colleges

Cognitive Domain – the area of learning which deals with the recall or recognition of knowledge and the development of intellectual abilities or skills.

Collaboration – to work jointly with others thereby enabling goals to be accomplished more effectively and comprehensively than by individual efforts.

Community Partnerships – Community partnerships are often established by a middle school to encourage interaction between the students and teachers and the community as a whole. Through partnerships, schools are able to demonstrate how business and industry contribute to the community. Students learn about cooperation, are encouraged to participate in community activities and events, and discover the many resources available to them, such as libraries, museums, government agencies, and civic organizations.

Comprehensive School Improvement Plan (CSIP) – A plan developed by local schools to incorporate all major concerns identified by their MSIP review and confirmed by the Department's School Improvement Committee.

Computer-Assisted Drafting (CAD) – The use of a computer as a drafting aid in the field of drafting and design. Also referred to as *computer-aided drafting*.

Concept – A broad category of information that has distinguishing features that are commonly held.

Concept map – A map depicting the hierarchical order of key concept words and propositions. The map is designed with a key word or question at the top, and then related words, phrases, and ideas are linked with arrows and lines depicting relationships and connections. The linkages also have phrases that show the relationship.

Constraint – Side effect or limit within the design process.

Cooperative Learning – This type of learning is based on the notion that students can learn from each other by coordinating efforts in a format that promotes the exchange of dialogue and ideas.

Each member of the small learning group has a role or responsibility to share and contribute to the other members' and the groups' progress.

Core Services for the Workforce Investment Act – Basic/initial services that are available at any One-Stop Career Center. These services are available to anyone. These services include: 1) determination of whether the individual is eligible to receive additional assistance under the Workforce Investment Act; 2) outreach, intake and orientation to the information and other services available through the one-stop delivery system; 3) initial assessment of skills, aptitudes, abilities, and supportive service needs; 4) job search and placement assistance and where appropriate, career counseling; 5) provision of local employment information; 6) performance information and programs cost on eligible providers of training services; 7) information regarding how the local area is performing in the local performance measures; 8) information regarding the availability of supportive services; 9) information regarding filing claims for unemployment compensation; 10) eligibility for welfare programs and financial aid assistance; and 11) follow-up services.

Core Competencies - A set of skills, knowledge, and attitudes necessary for success in a given area of study. Specific behaviors which may be knowledge, skill, or attitudinal in nature have been identified as components of an occupation.

Core Concepts – A set of ideas that make up the basis for the study of a particular subject or area of study.

Core Data - The collection, compilation and dissemination of descriptive statistics about Missouri public schools, including publication and distribution of the [Missouri School Directory](#), the Annual Report of the Public Schools of Missouri and the [School District Profiles](#). Educational statistics are provided to the [Missouri State Teachers Association](#), [National Education Association](#), [US Office of Education](#), and other organizations that seek information about Missouri public schools. The section maintains databases of [Missouri public school information](#) and performs ad hoc queries to provide historical data and specialized reports in response to individual requests.

Corporate Partnerships – A school or technology education department forms a partnership with a business or industry in the community in order to enhance the study of particular technologies or processes.

Course Code – A code number issued by the Missouri Department of Elementary and Secondary Education to identify courses through the core data system.

Course/Courses of Study – A series of lessons, activities, projects, or lectures that last a specified period of time and are designed around a specified subject.

Course Objectives – Description of what a student will know and be able to do upon successful completion of the course.

Creative-thinking Skills – the ability to gain, analyze and evaluate information come to a conclusion by using logic and reasoning skills. The four main categories are fluency, flexibility, originality, and elaboration.

Creativity – The ability to look at the same thing as everyone else but to see it differently.

Criterion – The desired element or feature of a product or system.

Criterion-referenced – an assessment of student performance in terms of some criterion of specified standard of performance. This is in direct contrast to the norm-referenced approach where students are assessed in terms of how they compare with other students. (Erickson & Wentling, 1988).

CSTL – Companion Standards for Technology Literacy: Student Assessment, Professional Development, and Program (ITEA, 2002).

Curriculum – The sum of the learning activities and experiences that a student has under the auspices or direction of the school.

Customized Training (CT) – Training that is designed to meet the special requirements of an employer who is committed to employ an individual upon successful completion of training, for which the employer will receive not less than 50 percent of the cost of the training.

Delta Pi Epsilon (DPE) – A national graduate honorary society for professionals who support and promote scholarship, leadership and cooperation towards the advancement of education for and about business.

Department of Elementary and Secondary Education (DESE) - The state agency for elementary and secondary education comprised of a team of dedicated individuals working for the continuous improvement of education and services for all citizens.

Department of Labor (DOL) – This federal agency fosters and promotes the welfare of the job seekers, wage earners and retirees of the United States by improving their working conditions, advancing their opportunities for profitable employment, protecting their retirement and health care benefits, helping employers find workers, strengthening free collective bargaining, and tracking changes in employment, prices and other national economic measurements.

Design Briefs – A written plan that identifies the problem to be solved. It is used to help students think of all aspects of the problem before starting to work on improving and/or developing a way of doing something. The design brief describes the problem, identifies the criteria, and lists the constraints students will face in creating a solution.

Design Process – A problem-solving strategy, with criteria and constraints, used to develop many possible solutions to solve a problem or satisfy human needs and wants. The design process is a general developmental method that is iterative (not linear).

Dictionary of Occupational Titles (DOT)– The Department of Labor publication that contains a large number of very specific detailed and precise descriptions of jobs in the United States.

Division of Workforce Development (DWD)– A state government office that supports a system that will provide employers with a skilled workforce and provides job seekers with access to jobs with increased earning potential.

Division of Youth Services (DYS) – Youth judged to be delinquent and in need of rehabilitation and education are committed to the Division of Youth Services by the state’s juvenile circuit courts until approved for return to the community under supervision or are discharged. The Division provides an

array of services including institutional care, community-based services, non-residential services and after-care supervision. The Division of Youth Services is part of the Department of Social Services.

Emotionally Disturbed – A type of disorder where observed behaviors deviate from the average or typical. Students with emotional or behavioral disabilities exhibit undesirable actions or feelings over along period of time which adversely affects performance. Symptoms include an inability to get along with their peers as well as hyperactivity. This is also known as behavior disorder.

Entrepreneurship – the ability to organize, manage, and assume risks of a business or enterprise.

Formative Assessment – Assessments that serve the role of providing feedback to teachers to help modify and improve teaching and learning.

Gaming – Gaming refers to the less realistic activities in which students are presented with a situation involving choices, risks, and pay-offs. Much is learned as students enjoy the challenge or the chance to play to win.

General Education – Courses that include core subjects such as basic reading, writing, science, and math skills.

Goals – Broad aims or purposes of a total educational curriculum or the broad outcomes expected within a specific program.

High Schools That Work (HSTW)– A model of high school reform developed by the Southern Regional Education Board (SREB) that integrates academic and vocational education, promotes staff development and raises expectations for and achievement of students.

Impact of Technology – The results of technological change. These outcomes may affect our society in economic, cultural, social, political, environmental, or a combination of many of these ways. The impact of technology can be observed in history, identified in the present day, and predicted for the future.

Industrial Arts – a curricular field that pertains to the study of tools, crafts and skills of industry

Industrial Technology – a curricular field that pertains to the study of industrial-based technological systems

Information Society – economy that emphasizes the output of information as a product

Instructional Materials Laboratory (IML)– The Instructional Materials Laboratory (IML), located within the College of Education at the University of Missouri-Columbia, is a national leader in curriculum development and publications specializing in career and technical education.

Internal Alignment – The process of aligning target/enabling objectives through lesson/guided practice to assessment where by each match a common cognitive, affective, or psychomotor domain.

International Technology Education Association (ITEA) – an international professional teacher organization promoting the teaching of technological literacy on the K – 12 grade levels

Internships – Work experience in the private sector. A short-term pre-vocational service designed to instill work habits and work ethics, or to allow the sampling of jobs to determine if an individual has the aptitude and interests necessary for training and/or placement.

Invention – The creation of a completely new idea, device, or different way of doing something.

Innovation – The improvement of an existing idea, device, or way of doing something in a creative or different way.

Iterative – involving repetition

Leadership – This ability enables people to influence others. Leading in a group involves planning, organizing, communication, managing, and cooperating.

Learning Disability – A disorder in one or more of the basic psychological processes involved in the understanding or use of spoken or written language, which may manifest itself in an imperfect ability to listen, think, speak, read, write, spell, or do mathematical calculations. Causes may be perceptual handicaps, brain injury, brain dysfunction, dyslexia, and developmental aphasia.

Limited English Proficiency (LEP) – Any person who has limited ability in speaking, reading, writing or understanding the English language; and whose native language is a language other than English; or who lives in a family or community environment where a language other than English is the primary language.

Local Education Agency (LEA)– The term used for public elementary and secondary school districts and other public schools such as the state schools for the deaf and the blind.

Mental Disorder – Disorders marked by social deviance, personality disturbances, and emotional turmoil.

Missouri Association for Career and Technical Education (MoACTE)– An association promoting the development of vocational-technical education within the state of Missouri continually emphasizing continued support of vocational-technical education at the secondary, postsecondary and adult levels, while fostering partnerships with business and industry in the training and re-training of the Missouri workforce.

Missouri Comprehensive Guidance Program – The Missouri Comprehensive Guidance Program is designed to serve all students in grades K-12 and help insure equal opportunity for all students to participate fully in the educational process integrating academics, career and personal/social development.

Missouri Council for Career and Technical Administrators (MCCTA)– A professional association of administrators, supervisors, state education staff members and department heads of vocational, technical practical arts education programs at the secondary, postsecondary, adult and collegiate levels that promotes career and technical education in the state.

Missouri Occupational Information Coordinating Committee (MOICC)– A multi-agency entity that is responsible for Missouri’s occupational and labor market information system. MOICC distributes information for career development and human resource planning and coordinates data produced by member agencies.

Missouri School Improvement Program (MSIP)– The Missouri School Improvement Program reviews and accredits the school districts in the state within a five-year review cycle. School district reviews cover the areas of resource, process and performance. The process of accrediting school districts is mandated by state law.

Missouri Trade & Technical Association (MTTA) – An organization to support and assist trade and technical instructors in both secondary and postsecondary areas. This support consists of technical upgrades and workshops, as well as academic training.

Missouri Vocational Special Needs Association (MVSNA)– An organization for persons interested in service to Missouri’s special needs population that includes students in Missouri who are disadvantaged and students with disabilities. This group could consist of counselors, basic skills instructors, vocational resource educators, supplemental/vocational preparation instructors and evaluators

Modeling Lab – This type of learning environment contains table top machines and a variety of tools and materials to promote the exploration, investigation and creation of a variety of products and systems. The modeling lab provides for individual or group learning activities. Support materials may be used, such as computers, multi-media, and textbooks.

Modular Lab – This type of learning environment uses modules to create learning centers throughout the technology education room. The module contains instructional equipment that delivers the content or lesson, generally to show students. The students learn and work through the use of a booklet or a computer. Support material is provided through watching video, reading textbooks, and building a project using appropriate tools, machines, and materials as identified in each module.

Modeling and Modular Lab (Combination) – This type of learning environment combines the modeling and modular labs into one laboratory-classroom. Students work in a variety of settings from prescribed modules in pairs to group projects developed by the student using a combination of modules and equipment. Students are able to move from identified learning goals to free exploration and development of products and systems. Opportunities for learning about inventions and innovations provide open-ended problem-solving experiences.

National Tech Prep Network (NTPN)– An organization for educators and employers involved in the advancement of Tech Prep and related education reform initiatives.

Objectives – sometimes referred to as behavioral, performance, instructional, or target objectives. Objectives usually represent smaller and more limited segments of larger goals.

Occupational Outlook Handbook – This Department of Labor publication describes approximately 250 occupations in detail covering 104 million jobs or about 85 percent of all jobs in the nation.

Office for Civil Rights (OCR)– A federal office that oversees regulation and implementation of Title IX of the Education Amendments of 1964; Title VI of the Civil Rights Act of 1964; Section 504 of the Rehabilitation Act of 1973; and Title II of the Americans with Disabilities Act of 1990. The regional office for Missouri is located in Kansas City at 816.880.4200.

On-the-Job Training (OJT)– Training by an employer that is provided to a paid participant while engaged in productive work in a job that provides knowledge or skills essential to the full and adequate performance of the job; provides reimbursement to the employer of up to 50% of the wage rate of the participant, for the extraordinary costs of providing the training and additional supervision related the training; and is limited in duration as appropriate to the occupation for which the participant is being trained, the prior work experience of the participant, and the service strategy of the participant, as appropriate.

Oral Presentation – Takes place at the completion of an individual or group project. This report may include the use of visuals, such as illustrations, photographs, computer-generated images, models, posters, flip charts, or slides.

Performance Assessment (test) – assessment tools and/or procedures in which students are evaluated while they are performing certain selected task.

Post-industrial Society – emphasizes of economy away from heavy industrial production

Portfolio – A systematic and organized collection of a student's work that includes results of research, successful and less successful ideas, notes on procedures, and data collected. The design portfolio or design log may also be used to demonstrate the cumulative learning process of a student over a unit of study, grading period, or entire course of study.

Practical Arts – those curriculum areas that include technology education, business education, agricultural education, family consumer sciences, and all other vocational education areas.

Problem Solving – The logical process of using prior knowledge, asking questions, testing and trying ideas in order to solve a problem, to meet a need or want, or to improve a process or product.

Psychomotor Domain – that area of learning that emphasizes some muscular or motor control, some manipulation of material or objects, or some act which requires a neuromuscular coordination.

School-to-Work (STW)– A systemic approach to combining work-based learning, class-based learning and connecting activities to provide students with the opportunity to begin the process of making educated career decisions while in school.

Science, Technology, and Society (STS) – This technique allows students to take an interdisciplinary approach when examining the concepts and processes of science and technology and relating the effects of each on society. This study helps lead to an informed citizenry capable of making responsible and social decisions.

Scoring Guide – Scoring Guides are a means to score the work of students that show detailed criteria for each level of accomplishment. It should be developed with student input so that they may develop an understanding of value-added learning. A rubric enables the teacher and student to know what is to be addressed and how it will be weighted.

Section 504 of the Rehabilitation Act of 1973 – Bars discrimination based on disability under any program or activity receiving funds from the U. S. Department of Education.

Service Learning – Federally funded program experiential learning through the integration of classroom curriculum and structured community service activities; also name given to the methodology of such practice.

Sharing – Students give short talks about what they are learning about or doing in class. They may offer advice to other students during formal seminars or as a part of teamwork and cooperative learning.

Show-Me Standard – Missouri educational content and performance standards established by Department of Elementary and Secondary Education and required by Missouri legislation

Simulation – This teaching strategy engages students in roles that are similar to real life. The students will learn how to apply the concepts learned in class, such as expressing their views and making decisions, to these real-life situations.

Smoke Stack Industry – emphasizes of economy on heavy industrial product output

Special Populations – Individuals with disabilities, economically disadvantaged individuals, individuals preparing for non-traditional employment, single parents, displaced homemakers, others with barriers, including individuals with limited English proficiency.

Standards-Based Assessment – Student products and performances are assessed by using measurable objectives that relate to the overall desired content to be learned as identified in the standards.

Standards for Technological Literacy: Content for the Study of Technology – a set of twenty standards for technological literacy developed under the direction of Technology For All Americans Project (TFAAP), commissioned by the International Technology Education Association.

Summative Assessment – Assessments that serve the role of measuring the degree of learning upon the completion of a set of learning activities.

TAMS – Technology Activity Modules

Teamwork – This process helps students work and learn together. Small groups or teams encourage students to share knowledge and skills while completing both short and long assignments. This is similar to the professional world, such as a project team consisting of engineers who bring different expertise to the group.

Technological Assessment – is a process of evaluating new technological items to predict the good and bad effects that may result. This process of thinking will lead to the identification of second, third, and fourth effects that may affect society more deeply than the primary effects. Using technological assessment leads to socially responsible decision-making.

Technological Capability – the level at which a business or industry can use technology for their benefit

Technological Literacy – the ability to use, manage, assess and understand technology

Technology – how people modify the natural world to suit their own purposes

Technology Education – The school subject that teaches about the processes used to design, create and maintain the human-built world

Technology for All Americans Project – an organization commissioned by the International Technology Education Association (ITEA) to produce national standards for technological literacy

Technology Student Association (TSA) – The national organization for technology education students, educators, parents and business leaders who are interested in learning how technology can be put to best use in discovering technological solutions to today's and tomorrow's challenges.

Tech-Prep – Short for Technical Preparation, a program that employs creative linkages between high schools and community and technical colleges.

Title IX of the Educational Amendments of 1972 (Title IX)– Bars discrimination based on gender under any program or activity receiving funds from the U. S. Department of Education.

Title VI of the Civil Rights Act of 1964 (Title VI)– Bars discrimination based on race or color under any program or activity receiving funds from the U. S. Department of Education.

Trade-offs – consequences of decisions made concerning the development of and/or use of a particular technology or technologies

United States Department of Education (USDE)– The federal education agency. Its responsibilities include higher education and student financial aid programs, as well as programs associated with elementary and secondary education.

Vocational Instructional Management System (VIMS) – A systematic approach to defining and measuring the knowledge, skills and attitudes students need to acquire in specific occupational areas.

Vocational Education – Now known as **Career and Technical Education** – formal and informal education that deals with preparing students for specific careers in vocational and/or technical occupations.

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